

**Massachusetts Department of Environmental Protection**  
**310 CMR 7.71 Greenhouse Gas Reporting**  
**Frequently Asked Questions (FAQ)**  
**Version 3.1 (March 2013)**

The purpose of this document is to clarify and explain certain provisions of MassDEP's greenhouse gas (GHG) reporting regulation. The regulation, and other information about the program, is available on MassDEP's web site at <http://www.mass.gov/dep/air/climate/reporting.htm>. Before consulting this document, please review the regulation and other available background information.

This version is an update from version 2.2, which was published in June 2011. New or revised material is marked with an asterisk. Note that several changes to this document reflect amendments to the GHG reporting regulation that MassDEP finalized in 2012. These changes are summarized in Q&A 23 in the "Reporting Requirements for Facilities (General Questions)" section. Further information about these amendments is available on MassDEP's web site at <http://www.mass.gov/dep/air/climate/reporting.htm>.

**Table of Contents**

Applicability of Reporting Requirements for Facilities.....	1
Reporting Requirements for Facilities (General Questions).....	2
Reporting Requirements for Facilities (Specific Source Categories).....	9
Verification Requirements for Facilities.....	12
Retail Sellers of Electricity .....	15
The MA GHG Registry.....	17

**Applicability of Reporting Requirements for Facilities**

\*Q1 – (Deleted)

\*A1 – (Deleted)

Q2 – Are motor vehicle emissions counted toward the 5,000 short ton reporting threshold?

A2 – No. While reporting of motor vehicle emissions is required for certain vehicles and facilities, these emissions are not counted toward the 5,000 short ton applicability threshold.

\*Q3 – How were the applicability requirements for reporting 2009 emissions different from the requirements for 2010 and later years?

A3 - For 2009 emissions, facilities were only required to include emissions of carbon dioxide (CO<sub>2</sub>) when determining applicability. For 2010 and all future reporting years,

emission of methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), and fluorocarbons (HFCs and PFCs) must be included when determining applicability. In order to determine whether a facility exceeds the 5,000 ton reporting threshold, a reporter must understand that this threshold is expressed in carbon dioxide equivalents (CO<sub>2</sub>e). For all greenhouse gases other than carbon dioxide, 5,000 tons of CO<sub>2</sub>e emissions corresponds to less than 250 tons of actual emissions, and for SF<sub>6</sub> and some HFCs and PFCs the threshold corresponds to less than one ton. Please refer to the section of this document titled “Reporting Requirements for Facilities (Specific Source Categories)” for additional information about quantifying emissions of greenhouse gases other than carbon dioxide.

Q4 – Where can I find more information that may be useful in determining whether my facility is required to report emissions pursuant to 310 CMR 7.71?

A4 - Please refer to the Applicability Screening Tool, and associated instructions, for further assistance in determining whether a particular facility may be required to report GHG emissions. The Applicability Screening Tool is available at <http://www.mass.gov/dep/air/climate/reporting.htm>.

Q5 – My facility has restricted emissions status. Am I required to report GHG emissions pursuant to 310 CMR 7.71?

A5 - If your facility has restricted emissions status, and does not exceed the 5,000 ton CO<sub>2</sub>e threshold, then you are not required to report. However, if the facility exceeds the 5,000 ton CO<sub>2</sub>e threshold, then reporting is required, regardless of whether the facility has restricted emissions status.

Q6 – If my facility exceeds the applicability threshold because of a one-time leak of methane, sulfur hexafluoride, fluorocarbons, or another greenhouse gas, am I required to report GHG emissions pursuant to 310 CMR 7.71?

A6 – Yes, you are then required to report all GHG emissions from your facility annually, until such time as the facility meets all requirements of 310 CMR 7.71(3)(b) (*Exemption for Facilities with Low or Reduced Emissions*).

### **Reporting Requirements for Facilities (General Questions)**

Q1 – What is the relationship between the General Reporting Protocol (GRP) and Massachusetts’ reporting requirements?

\*A1 – Reporters should refer to the Massachusetts regulation to determine which emissions sources should be reported, and then use methodologies included in the GRP to quantify emissions from those sources. The relevant sections of the GRP are the methodologies that explain how to quantify emissions from particular source categories (e.g., boilers, refrigeration units, vehicle fleets, etc.), and facilities are required to use these methodologies to quantify emissions for reporting to MassDEP. The GRP also

includes sections that explain which emissions sources must be included in reports submitted to The Climate Registry's (TCR's) voluntary GHG reporting program. These sections of the GRP, which require, for example, entity-wide reporting and the inclusion of indirect emissions from electricity consumption at facilities, are not relevant for MassDEP's Reporting Program. Similarly, the Exclusion of Miniscule Sources Form is not relevant for MassDEP's program because it determines which sources must be included in reports submitted to TCR's voluntary GHG reporting program, and does not provide any methodologies that can be used to quantify emissions from sources. The GRP is available at <http://www.theclimateregistry.org/downloads/GRP.pdf>.

Q2 – How does US EPA's new greenhouse gas emissions reporting requirement affect Massachusetts' Reporting Program?

\*A2 – Approximately 50 of the largest emitters in Massachusetts are required to report GHG emissions to MassDEP and US EPA. In cases where facilities report emissions from the same emissions source to both programs, the facility must report emissions to MassDEP using the same quantification method that is used to report the same emissions to US EPA. Please refer to Q23 in this section for additional information. Facilities that are not subject to US EPA's Reporting Program are also encouraged to utilize US EPA methodologies where applicable. We also note that, while we are not aware of any contradictory requirements in the two programs, there are cases in which certain data elements may be required by one program and not the other, such as the requirement for Massachusetts facilities to report emissions from motor vehicles assigned to the facility. (Note: The requirement for facilities that report GHG emissions to US EPA's GHG Reporting Program was included in amendments to MassDEP's regulation that were finalized in 2012.)

\*Q3 – Are facilities required to retain “documentation” if it is not “practicable” to use a Tier A methodology?

\* No, all methodologies included in the GRP are acceptable, and there is no requirement to retain documentation to demonstrate that the most accurate practicable methodology has been used. (The only exception is Simplified Estimation Methods, which cannot be used to quantify more than 1,000 short tons of GHG emissions (in carbon dioxide equivalents). However, facilities are encouraged to utilize the most accurate applicable methodology to report emissions to MA GHG Registry. (Note: The requirement to report in accordance with a “Tier A” methodology if practicable was deleted from the regulation in amendments that were finalized in 2012.)

Q4 - The regulation requires facilities to retain “documentation” if it is not “practicable” to separately report emissions from each stationary source at a facility. What type of documentation is acceptable for this purpose?

A4 – The documentation must clearly show that it would not be practicable to separately report emissions from each stationary source at a facility. Among the criteria that may be considered acceptable are costs, or the need to implement significant operational changes

at a facility. Examples of acceptable documentation could include a diagram showing that multiple sources receive fuel from a common source and are not separately metered, an explanation of an efficient system for tracking facility-wide use of sulfur hexafluoride or refrigerants that could not be readily adapted to support separate reporting, or cost estimates for installation of flow meters that would allow separate quantification. The purpose of this requirement is to ensure that reporters fully explore the options for separately reporting emissions from different sources, not to require facilities to implement costly or significant changes to track information that is not likely to be useful in controlling emissions. Therefore, documents that explain significant expenditures or disruptions that would be needed to separately quantify emissions from different sources are generally acceptable to meet this requirement. The documentation should also list and describe the sources that were aggregated.

Q5 - Rental vehicles are often used for weeks or months at a time to support operations at our facility. Do we need to report emissions from all of these vehicles?

A5 – It is not necessary to report emissions from a motor vehicle that is assigned to a facility for less than six consecutive months, regardless of whether the vehicle is leased or owned. (MassDEP considers a rental to be a type of lease.) For vehicles assigned to a facility for more than six months, only vehicles that are leased or owned by a company (or affiliate) that is required to report emissions from the facility must be included in the report. For example, it is not necessary to report emissions from vehicles owned or leased by a contractor hired to perform maintenance at a facility, regardless of how long the vehicles are assigned to the facility. (An exception to this six month rule would occur if a vehicle were shared among multiple reporting facilities over a period of more than six months, but not assigned to any particular reporting facility for more than six months. In that case, emissions from the vehicle must be included in the emissions report for at least one of the facilities, even if it is not assigned to any one of the facilities for more than six months.) Facilities are encouraged to contact MassDEP to discuss options for dealing with vehicles that are assigned to multiple facilities, and cases in which vehicles are fueled at reporting facilities other than where they are assigned.

\*Q6 – We have a large number of small emissions sources at our facility. Even if we aggregate these sources, estimating the emissions will require substantial effort and the total emissions from all of these sources is not significant. Can we simply exclude these sources from our report?

A6 – No. The regulation does not allow emissions to be excluded. However, a facility is allowed to use simplified estimation methods to quantify emissions from these types of activities, as long as the total amount of emissions from the facility quantified in accordance with simplified emissions methods does not exceed 1,000 short tons (in carbon dioxide equivalents). Simplified estimation methods are described in Chapter 11 of the General Reporting Protocol. In general, simplified estimation methods provide a credible estimate of emissions while minimizing the reporting burden on a facility, and facilities are allowed to develop methods that address these goals at their facility.

\*Q7 – (Deleted)

\*A7 – [\(Deleted. Please refer to Q2 and Q3 of this section.\)](#)

Q8 – Please explain the requirement to report fuel characteristics needed to determine correct emission factors.

A8 – In general, reporters must meet this requirement within MassDEP’s electronic reporting system by selecting an emission factor from a list based on fuel characteristics. For example, by selecting “pipeline natural gas” from a menu, the reporter will indicate that the fuel has the characteristics of pipeline natural gas. In other cases, the reporter may meet this requirement by entering fuel characteristics, such as heat or carbon content, directly into the software platform. In these cases documents showing the origin of the numeric values of the fuel characteristics should be retained at the facility.

Q9 – My facility is a university. The regulation says that in 2011 when reporting greenhouse gas emissions we need to include hydrofluorocarbon (HFC) and perfluorocarbon (PFC) refrigerant emissions that occurred in 2010. Are we required to include emissions from student-owned refrigerators or air conditioning units brought into our dormitory buildings?

A9 – No. Your report must include any emission sources at your facility that you own, operate or control. Since your facility does not own, operate or control student supplied dorm refrigerators or air conditioning units, you do not need to include these in your report. Note that emissions from refrigerators and other equipment located at the facility and owned, operated, or controlled by the university must be included in the report, even if the equipment is located in space that is leased to tenants such as students or faculty. Please refer to Q3 and Q7 in the “Reporting Requirements for Facilities (Specific Source Categories)” section for additional information about reporting refrigerant emissions.

Q10 – Is there a fee associated with reporting greenhouse gas emissions to MassDEP?

\*A10 – There is currently no fee for reporting emissions.. MassDEP may establish a fee for future reporting years. Any fees will go through a public hearing process before being promulgated.

Q11 – In general, what documentation is required regarding the use of simplified estimation methods (SEM)?

A11 – The MassDEP regulation does not include any specific documentation requirements for simplified estimation methods. However, emissions quantified using simplified estimations are subject to the general requirement to retain documentation and calculations on site. At minimum, this documentation should be sufficient to allow verifiers to be confident that emissions quantified using simplified estimation methods are not under-estimated and do not exceed 1,000 short tons. Reporters must also include general information about these emissions in emissions reports, including categories of

sources that are included in the simplified estimates, and the estimated amount of emissions associated with each category.

Q12 – The regulation references the GRP and an associated list of clarifications and corrections. Are the clarifications and corrections relevant for MassDEP's program?

\*A12 – Yes, any methodology included in any version of the GRP, or any associated updates and clarifications document, is acceptable. However, facilities are encouraged to use the latest methodologies from the most recent version of the GRP and associated clarifications, and are not allowed to use outdated methodologies if those methodologies are known by the facility to result in inaccurate reporting of emissions. In general, the MA GHG Registry is updated annually to support the latest methodologies and emissions factors. (Note: Regulatory amendments that were finalized in 2012 replaced a requirement to report in accordance with a specific version of the GRP with a more general requirement to report in accordance with any version of the GRP. The Climate Registry will release GRP 2.0 in March 2013. The new version of the document incorporates the updates and clarifications previously listed separately. In the future, The Registry may create another list of updates and clarifications.)

Q13 – Please clarify how the reporting requirements for 2009 are different from the requirements for future years.

A13 – For emissions that occur in 2009, only carbon dioxide emissions from fuel combustion must be reported, and reporting of motor vehicle emissions is limited to on-road motor vehicles. For all future years, the requirement expands to include other greenhouse gases, source types, and all motor vehicles.

Q14 - There are trucks that operate in support of my facility. The trucks are owned by a separate trucking company, but both my facility and the trucking company are ultimately owned by the same corporation. Do I need to report emissions from these trucks?

A14 - Yes. If the trucks are assigned to the facility for more than six consecutive months, or to a group of facilities that are required to report, then emissions from these vehicles must be included in the facility report. Under the regulation, the corporation is an "entity" that is required to report emissions from the facility, and the trucking company is an "affiliate" of that entity.

Q15 - My facility provides vehicles to employees, who are allowed to use the vehicles for commuting to the facility and for personal business. Is it necessary to report emissions from these vehicles?

A15 - Yes, if the vehicles are owned or leased by a company that owns, operates, or controls the facility, the emissions from the vehicles must be reported, even if the majority of the emissions occur when the vehicles are being used for personal business.

Q16 - Are there any requirements regarding who can certify the emissions report for a facility?

A16 - Yes, the regulation requires the “authorized signature . . . of the entity subject to the requirement to report greenhouse gas emissions.” (See 310 CMR 7.71(6).) In order to complete the electronic reporting process, each reporting entity will be required to identify an Authorized Entity Representative, and this individual will be required to electronically sign a certification statement before the report can be submitted. MassDEP suggests that the Authorized Entity Representative signing the form be the responsible official (as defined in 310 CMR 7.00: *Definitions*) who signs the source registration form pursuant to 310 CMR 7.12(2) or the responsible official who signs the Compliance Certification pursuant to 310 CMR 7.00: Appendix C(5)(b)9. Note that, regardless of who signs the certification statement, all entities that own, operate, or control a facility are ultimately responsible for ensuring that emissions from the facility are reported in accordance with 310 CMR 7.71.

Q17 - There are a number of buildings located on the same site as my facility. Several of these buildings are owned, operated, and controlled by entities that are not affiliated with any entity that owns, operates, or controls the facility. Do I need to include emissions from these buildings in my GHG emissions report?

A17 - The building is not considered to be part of the facility if there are no affiliations between entities that own, operate, or control the facility and entities that own, operate, or control the building in question. Facilities may contact MassDEP to discuss questions concerning emissions from sources located on contiguous or adjacent facility property to discuss the operative definitions of “entity,” “facility,” and “source” and how they may apply to a specific case. Please note that the definition of “facility” included in the GHG reporting regulation is synonymous with the definition that applies in the source registration program (310 CMR 7.12). Therefore, when emissions of other air pollutants from a particular building have been reported under MassDEP’s source registration program by a particular facility, GHG emissions from that building should be reported by the same facility.

Q18 - If I’m an owner of a facility required to report air emissions data to MassDEP pursuant to 310 CMR 7.00: Appendix C (the MA Air Operating Permit Program), when do I need to modify my operating permit to include the GHG recordkeeping and reporting requirements included in 310 CMR 7.71?

A 18- Owners of an Operating Permit facilities must modify their Operating Permit to include the recordkeeping and reporting requirements contained in 310 CMR 7.71.

- If the facility’s Operating Permit has less than three (3) years before the time for renewal of the Operating Permit, then the owner can wait to incorporate the recordkeeping and reporting requirements into the Operating Permit until its time to renew the Operating Permit pursuant to 310 CMR 7.00: Appendix (C)(14). The owner should be sure to include the GHG reporting requirements in the renewal application.

- If an owner already has a renewal application into the Department, then the owner should submit replacement pages to the renewal application to ensure the inclusion all new applicable requirements.
- If the facility's Operating Permit has more than 3 years left before its time to renew the permit, then the owner must submit to the Department an Operating Permit Minor Modification application (BWP AQ 10) in accordance with 310 CMR 7.00: Appendix (C)(8)(d).

Q19 - If an entity that was not previously subject to the GHG Reporting regulations (310 CMR 7.71) becomes subject to the MA GHG Reporting Program, does that entity have to report its emissions for the whole calendar year?

A19 - Yes. Any entity that becomes subject to the MA GHG Reporting Program during any calendar year by either becoming a MA Operating Permit (OP) facility or emitting more than 5,000 short tons of greenhouse gases (or of CO<sub>2</sub> only for reporting of 2009 emissions), must, by April 15<sup>th</sup> of the following year, report all greenhouse gas emissions from the entire previous calendar year, not just from the date the entity became subject to the program to the end of the calendar year.

\*Q20 - (Deleted)

\*A20 – (Deleted. Please refer to Q3 in this section.)

\*Q21 – Per the 2011 regulation amendments, the regulation no longer requires facilities to quantify greenhouse gas emissions in accordance with Tier A methodologies to the extent “practicable.” What am I required to keep track of?

\*A21 - Reporting facilities must retain supporting documentation and calculations for all emissions reported to the MA GHG Registry. Please refer to Q3 in this section for more information.

\*Q22 – Are facilities allowed to use The Climate Registry's new Exclusion of Miniscule Sources Form to report emissions to MassDEP?

\*A22 – No, the Exclusion of Miniscule Sources Form is intended for reporting for The Climate Registry's Voluntary Program. MA Reporters should refer to the Massachusetts regulation to determine which emissions sources should be reported, and then use methodologies included in the GRP to quantify emissions from those sources. Please also note that a facility is allowed to use simplified estimation methods to quantify emissions from very small source types, as long as the total amount of emissions from the facility quantified in accordance with simplified emissions methods does not exceed 1,000 short tons (in carbon dioxide equivalents). Please refer to Q1 and Q6 in the “Reporting Requirements for Facilities (General Questions)” section for more information.



\*Q23 – How have the reporting requirements for facilities changed since the regulation was amended in 2012?

\*A23 – The only new requirement included in the amendments applies only to facilities that are also required to report emissions to US EPA’s GHG Reporting Program. In cases where these facilities report emissions from the same emissions source to both programs, the facility must report emissions to MassDEP using the same quantification method that is used to report the same emissions to US EPA. The amendments also clarified that (1) natural gas systems are considered facilities, (2) portable pieces of equipment are considered to be stationary emissions sources if they are designed to be operated while stationary, and (3) any quantification method included in any version of the General Reporting Protocol is acceptable for reporting emissions to the MA GHG Registry. Finally, the requirement to report emissions in accordance with a “Tier A” methodology was deleted from the regulation. Further information about these amendments is available at <http://www.mass.gov/dep/air/climate/reporting.htm>.

### **Reporting Requirements for Facilities (Specific Source Categories)**

Q1 – Please explain the applicability and reporting requirements for landfills.

A1 - Beginning with emissions that occur in 2010, the regulation requires reporting of GHG emissions from landfills, including fugitive emissions of methane and carbon dioxide. MassDEP has reviewed available information about landfills in MA and concluded that there are a large number of closed landfills that emit some amount of methane, but that are not actively managed, or for which information needed to quantify and report emissions (e.g., information about the contents or ownership of the landfill) is not readily available for other reasons. Therefore, for emissions that occur in 2010, only active landfills (i.e., landfills that accepted waste in 2010) and landfills that own, operate, or control landfill gas-to-energy systems are required to report emissions to the MA GHG Registry if they exceed the general applicability provisions of 310 CMR 7.71(3). Beginning with emissions that occur in 2011, inactive landfills that are required to report emissions to US EPA’s GHG Reporting Program (40 CFR Part 98) must also report to the MA GHG Registry, if they exceed the general applicability provisions of 310 CMR 7.71(3). For 2012 and subsequent years, MassDEP will consider adding additional categories of inactive landfills to the program. Because the General Reporting Protocol does not include specific methodologies for quantifying emissions from landfill, emissions must be quantified, to the extent practicable given equipment and procedures in place at the facility, in accordance with existing industry best practice or internationally accepted best practices, including industry or sector-specific methodologies published by The Climate Registry.

\*Q2 –Is it necessary to track mileage and vehicle technologies to quantify CH<sub>4</sub> and N<sub>2</sub>O emissions?

\*A2 – Emissions of CH<sub>4</sub> and N<sub>2</sub>O vary depending on mileage and vehicle technology. Therefore, this information is necessary to accurately quantify these emissions..

However, because these gases are emitted from vehicles in relatively small quantities, Simplified estimation methods may be appropriate for quantifying emissions of CH<sub>4</sub> and N<sub>2</sub>O from vehicles, as long as the total quantity of emissions from the facility quantified using simplified estimation methods does not exceed 1,000 short tons (in carbon dioxide equivalents). The following emission factors may be useful in such cases:<sup>1</sup>

- To calculate emissions of N<sub>2</sub>O from vehicles, multiply the amount of CO<sub>2</sub> emissions from the vehicles by 0.0000697 (i.e.,  $6.97 \times 10^{-5}$ ).
- To calculate emissions of CH<sub>4</sub> from vehicles, multiply the amount of CO<sub>2</sub> emissions from the vehicles by 0.0000623 (i.e.,  $6.23 \times 10^{-5}$ ).

Q3 – (Deleted.)

A3 - (Deleted. Please refer to Q7 in this section for additional information about reporting refrigerant emissions.)

Q4 – Are we required to report emissions of carbon dioxide that do not result directly from fuel combustion?

A4 – Yes, all emissions of greenhouse gases must be reported. The only exception is for emissions that occur in 2009. For 2009 emissions, only carbon dioxide emissions that result from the combustion of fuels must be reported. However, facilities may report non-fuel CO<sub>2</sub> emissions that occur in 2009 if that is easier than separating out combustion-related CO<sub>2</sub> emissions.

Q5 – How does MassDEP’s Reporting Program deal with biogenic emissions that result from combustion of biomass and biofuels?

A5 – Biogenic emissions must be reported, and are counted when determining whether a facility exceeds the 5,000-ton applicability threshold. However, within the electronic registry, biogenic carbon dioxide emissions are reported separately from other GHG emissions.

Q6 – What are the reporting requirements for fugitive emissions from natural gas transmission and distribution systems?

A6 – For the purpose of determining applicability and reporting emissions, a network of interconnected natural gas-containing equipment that emits, or has the potential to emit, natural gas is considered a single facility. Examples of equipment that may be included in a single facility include, but are not limited to, pipelines, tanks, metering stations, and regulating stations. In the case of natural gas systems, since the entire network of commonly owned equipment is continuous, interconnected, and is located on property in which the owner has a property interest (lease, easement, etc.), the network is considered to be located on contiguous property, and therefore constitutes a single facility for the purpose of reporting greenhouse gas emissions pursuant to 310 CMR 7.71. Facilities are

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<sup>1</sup> These emission factors were developed using emissions data for passenger cars and light-duty trucks from EPA’s Inventory of U.S. GHG Emissions and Sinks 1990-2007, Table 2-15.

encouraged to contact MassDEP to discuss specific cases in which a single company would prefer to aggregate multiple facilities for convenience, and cases in which air emissions from equipment that is part of a larger facility are already being reported to MassDEP under 310 CMR 7.71 or another emissions reporting program.

Q7 – Is there a simple way to estimate emissions from refrigerators and air conditioners?

A7 – You may use simplified estimation methods, as described in Chapter 11 of the General Reporting Protocol, to estimate these emissions, provided that the use of simplified estimation methods is indicated within the electronic registry, and provided that the total amount of emission from the facility quantified using simplified estimation does not exceed 1,000 tons (in carbon dioxide equivalents). In order to report emissions of refrigerants in the electronic registry, you must report the quantity and specific type of greenhouse gas emitted, or report conservative estimates for those two quantities that ensure that emissions are not under-estimated. For example, the gas with the highest global warming potential in table 16.2 of the GRP is R-508B (GWP = 10,350), and table 16.3 shows that emissions from air conditioning units in vehicles may be as high as 0.00030 metric tons (i.e., 0.0015 metric tons capacity with a 20% leakage rate). Therefore, using simplified estimation methods, it would be acceptable to report that each vehicle in a fleet emits 0.00030 tons of 508B, instead of attempting to separately estimate the emissions from each vehicle or vehicle type in a fleet. Reporters may also use the following list of conservative assumptions to limit the degree that refrigerant emissions are over-estimated for vehicles and other applications. As long as the use of simplified estimation methods is indicated within the electronic registry, it is acceptable to report the information below even if it is known to be incorrect for some or all of the refrigeration units or air conditioners.<sup>2</sup>

- The GWP of refrigerants used in vehicles, refrigerated appliances (e.g., refrigerators), and ice makers generally does not exceed the GWP of R-134a (GWP = 1,300)
- The GWP of refrigerants used in chillers generally does not exceed the GWP of R-407c (GWP = 1,526)
- The GWP of refrigerants used in window AC units, dehumidifiers and commercial unitary air conditioners (e.g., rooftop AC units) generally does not exceed the GWP of R-410A (GWP = 1,725)

\*Q8 – Is the SWICS method an allowable industry best practice method for quantifying emissions from landfills?

\*A8 – In general, the only methods that are considered industry best practice methods for quantifying emissions from landfills are methods that are allowable for reporting to US EPA's GHG Reporting program, and methods that are included in The Climate

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<sup>2</sup> These examples are adapted from: U.S. EPA, *Inventory of Greenhouse Gas Emissions and Sinks: 1990-2005* (2007), Annex 3.8, Tables A-143, [http://www.epa.gov/climatechange/emissions/downloads/US\\_GHG\\_Inv\\_Annexes\\_1990-2005.pdf](http://www.epa.gov/climatechange/emissions/downloads/US_GHG_Inv_Annexes_1990-2005.pdf) )

Registry's Local Government Operations Protocol. However, for landfills that are not subject to US EPA's GHG Reporting Program and are not owned, operated, or controlled by a government entity, MassDEP is willing to consider the use of other methods, including the SWICS method, on a case-by-case basis. In such cases, landfills should contact MassDEP annually before completing the reporting process.

\*Q9 – Which of the Activity Types available in the MA GHG Registry are appropriate for use in quantifying fugitive and combustion emissions from landfills.

\*A9 – Activity Types are assigned and edited during the fuel assignment process in the Physical Inventory section of the MA GHG Registry. The fuel assignment process is accessible from the Source Details page, and determines which options and emissions factors are available when emissions are reported in the Emissions Inventory section of the MA GHG Registry, and also determines how the emissions are categorized in reports. Emissions from combustion of landfill gas in flares or engines, including emissions of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O, should be reported using the "Stationary Biomass Combustion – Biomass" Activity Type. Fugitive emissions of methane should be reported using the "Fugitive Emissions – Scope 1" Activity Type. Fugitive emissions of biogenic carbon dioxide from the decay of organic material in landfills, including biogenic carbon dioxide that passes through flares and engines, should be reported using the "Biomass (Optional)" Activity Type. (Note, however, that reporting of these emissions is not optional under MassDEP's GHG reporting regulation.) Because only one Activity Type can be assigned to each source, it is necessary to create separate source record to report fugitive emissions of carbon dioxide and methane.

\*Q10 – Are natural gas systems subject to the requirement to report emissions from separate stationary emissions sources separately, to the extent practicable?

\*A10 – Yes, natural gas systems are considered facilities and are therefore subject to all of the requirements that apply to facilities that report GHG emissions to the MA GHG Registry. In general, MassDEP does not consider it to be practicable for facilities to separately report emissions from a large number of similar small sources. However, in cases where a single emission factor is used to estimate emissions from a large number of similar sources (e.g., distribution pipes, regulation stations, company-owned customer meters) emissions from that group of sources should be reported separately. Similarly, if emissions from a particular source or group of sources are separately reported to US EPA, then it is practicable to report these emissions separately to MassDEP. Please refer to Q4 in the "Reporting Requirements for Facilities (General Questions)" section for general information regarding the requirement to report sources separately, including documentation requirements.

### **Verification Requirements for Facilities**

Q1 – Am I required to have my 2009 emissions report verified?

A1 – No, There is no requirement to verify any 2009 emissions report.

Q2 – When will my facility first be subject to the verification requirement?

A2 - If your facility reported more than 25,000 tons of CO<sub>2</sub> emissions for 2009, you will need to have your 2010 emissions report verified by December 31, 2011. If your facility reports more than 10,000 tons of GHG (CO<sub>2</sub>-equivalent) emissions for 2010, you will need to have your 2011 emissions report verified in 2012. All other facilities will need to have 2012 emissions verified in 2013.

Q3 – The General Verification Protocol explains how to verify entity-wide emissions reports, not facility-specific emissions reports. Are verifiers required to verify all facilities associated with the same entity together? What if an entity owns other facilities that are not required to report GHG emissions to MassDEP?

A3 – No. Emissions from each regulated facility must be verified separately. Verifiers must design a separate verification plan, conduct a facility visit, and produce a separate Verification Statement for each regulated facility within the entity. Verifiers should complete the verification process as though the facility is the only facility associated with the reporting entity. For example if facility X is owned by Entity Y, verification of the report for facility X should proceed as though facility X is the only facility owned by Entity Y.

Q4 – Are verifiers required to verify whether the correct motor vehicles are included in facility reports?

A4 – No, facilities are entirely responsible for identifying which motor vehicles are subject to the regulation. Verifiers are only responsible for verifying that emissions from the vehicles are correctly quantified.

\*Q5 – MassDEP’s regulation includes requirements to report emissions from separate emissions sources separately, to the extent practicable. Is this provision subject to the verification requirement?

\*A5 - No, MassDEP does not require Verification Bodies to verify that a reporter has reported emissions from separate emissions sources separately.

Q6 – MassDEP’s regulation includes documentation retention requirements that are different from those in The Climate Registry’s protocols. Are these requirements subject to verification?

A6 – No, the regulated facility is entirely responsible for ensuring retention of documents as required by the regulation. The Verification Body must review sufficient evidence to support the emissions report; however, the Verification Body is not responsible for ensuring the facility’s retention of these documents.

Q7 – Does MA’s GHG Reporting Program include a materiality threshold for verification?

\*A7 –The Climate Registry’s General Verification Protocol, which is referenced in MassDEP’s GHG reporting regulation, sets a “materiality threshold” of five percent (i.e., an accuracy threshold of 95%). This means that the Verification Body can issue a positive Verification Statement for an emissions report that includes known misstatements and omissions, as long as these misstatements and omissions do not result in an error of more than five percent of the total emissions reported by a reporting entity. This provision applies to verification under MassDEP’s GHG Reporting Program. Therefore, in order to complete the verification process, it is necessary for facilities to correct only material (or potentially material) misstatements and omissions. However, the 5% materiality threshold is intended to lessen the financial and administrative burden associated with the verification process, and does not absolve facilities of the separate obligation to report in accordance with all provisions of 310 CMR 7.71. In particular, a facility may not submit a GHG emissions report with known misstatements and omissions. Therefore, facilities must ensure that misstatements and omissions identified during the verification process are not repeated in subsequent years.

Q8 – Can I submit forms that are used for verification under The Climate Registry’s voluntary GHG Reporting Program to MassDEP?

A8 – No. MassDEP’s verification forms, including the verification statement and conflict of interest form, are available on MassDEP’s GHG Reporting Program web page (<http://www.mass.gov/dep/air/climate/reporting.htm>). A full list of forms and requirements, including instructions for notifying MassDEP in advance of facility visits, is available in the Verification Process Checklist on the same web page.

Q9 – What are MassDEP’s requirements regarding conflict of interest assessment?

A9 – Verification Bodies must conform with the conflict of interest assessment policies set forth in The Climate Registry’s General Verification Protocol and must complete MassDEP’s Conflict of Interest (COI) Assessment Form for each facility for which they intend to provide verification services to satisfy the requirements of the MA GHG Reporting Program. The COI form must be submitted to MassDEP at least 15 business days prior to beginning to conduct verification activities for a particular company and emissions year. MassDEP intends to respond to each form within 15 days. If a response is not received within 15 business days, and the Verification Body has determined a low potential for COI, the Verification Body may assume that the form has been presumptively approved and execute the contract and begin to conduct verification activities. Any Verification Body that determines that its risk for COI is anything other than low may not provide verification services to that facility.

Q10: MassDEP permits facilities to use simplified estimation methodologies for up to 1,000 short tons of CO<sub>2</sub>e. Is conformance with this threshold subject to verification?

A10: Yes, conformance with this requirement is subject to verification.

Q11 - MassDEP exempts certain emissions from the verification requirement. How do these exemptions affect the verification process?

A11 – All facilities are subject to the general requirement to have emissions verified by an approved Verification Body, even if the non-exempt emissions do not exceed five percent of the total facility emissions reported. In all cases, the Verification Body must conduct a facility visit and verify that the report does not contain any material misstatements or omissions. While the Verification Body is not responsible for verifying the accuracy of the emissions reported to the exempt program (e.g. to EPA under 40 CFR Part 75), the Verification Body must confirm that the quantity of emissions that the facility reported (e.g. under Part 75) is consistent with the quantity of emissions included in the facility's emissions report submitted to MassDEP. The Verification Body is also responsible for ensuring the completeness of the facility's inventory, conformance with the 1,000 short ton threshold for simplified estimation methodologies, and that the non-exempt emissions reported do not result in an error greater than five percent of the total facility emissions (the total including the Part 75 emissions). The MassDEP Verification Statement form has separate fields to disclose emissions sources exempt from verification.

Q12 – If I am conducting verifications for multiple regulated facilities owned by the same parent company, can I submit a single COI Assessment Form?

A12 – Yes, you may list all those facilities on a single COI Assessment Form.

Q13 – If I have questions about MassDEP's verification program, who should I ask?

A13 – MassDEP has partnered with The Climate Registry to provide support services for their GHG Reporting Program. As part of this partnership, The Climate Registry provides support for the verification program. Facilities with general questions about verification should contact the helpline. Contact information for the helpline is available at <http://www.mass.gov/dep/air/climate/reporting.htm>. If you are a verifier and have questions, please e-mail [MassDEPVerification@theclimateregistry.org](mailto:MassDEPVerification@theclimateregistry.org) or call Jackie Zorovich at 201-238-2572.

\*Q14 – How do I assign a Verification Body in the MA GHG Registry?

\*A14 – Please refer to the [MassDEP Electronic GHG Registry Getting Started Guide](#), which is available at <http://www.mass.gov/dep/air/climate/reporting.htm>.

### **Retail Sellers of Electricity**

Q1 – If you have a co-generation site and sell electricity back into the grid, do retail seller requirements apply?

A1 – No, you only need to report as a retail seller if you meet the definition of a retail seller: "Retail Seller means a competitive supplier licensed by the Department of Public Utilities or, as each is defined in M.G.L. c.164A, §1, an electric utility, municipal electric department or municipal light board."

Q2 – What types of fuels used by an Emitting Electricity Generator qualify for the 310 CMR 7.71(9)(d)6. option to adjust a Retail Seller's sales of electricity reported under 310 CMR 7.71(9)(d)1. or 2.?

A2 – Any fossil or biogenic fuels are acceptable provided that the Emitting Megawatt Hours are reported in the annual report due under 310 CMR 7.71(9)(a), and that the applicable criteria in 310 CMR 7.71(9)(d)6.a. through d. are met.

Q3 – Are GHG emissions reported by a Retail Seller required to be reviewed and/or certified by an Approved Verification Body?

A3 – The total GHG emissions reported by a Retail Seller do not need to be reviewed or certified by an Approved Verification Body, as the emission factors used to calculate total emissions will be provided by MassDEP and the megawatt hours used in that calculation are supplied by the seller from submittals reviewed by other state agencies. However, Retail Sellers choosing to use the optional 310 CMR 7.71(9)(d)6. approach to account for the emissions of particular Emitting Electricity Generators need to use emissions verified by an Approved Verification Body, through one of two approaches.

First, if the Emitting Electricity Generator has reported to the MA GHG Registry under the facility reporting provisions of 310 CMR 7.71(5) or (8), then that Emitting Electricity Generator's emissions are subject to the verification requirements for Facilities, and no additional verification is needed.

On the other hand, if the Emitting Electricity Generator has not reported under the facility reporting provisions of 310 CMR 7.71(5) or (8) (because the facility is located outside Massachusetts, or the emissions are not included in the MA GHG Registry for another reason), then that Emitting Electricity Generator's emissions (but not any other emissions from the facility) are subject to the verification requirements of 310 CMR 7.71(9)(d)6.d.iii. The retail seller must hire a Verification Body recognized by MassDEP and verify the emissions by December 31 of the year following the year during which the emissions occurred, and every third year after that. MassDEP will create a form that retail sellers can use to document the verification in such cases.

Q4 – I am a Retail Seller of electricity and own a facility with an electric generating unit on-site. Do I need to report the GHG emissions from generating my electricity twice?



A4 – Yes. Some municipalities and competitive suppliers may be required to report GHG emissions as a facility, and as a Retail Seller. If your electric generating unit meets the applicability requirements of 310 CMR 7.71(3)a., you will need to report its annual GHG emissions under 310 CMR 7.71(5). In addition, as a Retail Seller of electricity you will need to report the total annual megawatt hours you sold to all of your customers, and the associated GHG emissions, under 310 CMR 7.71(9). These two aspects of the reporting rule provide different ways of looking at the MA GHG inventory. The GHG emissions required to be reported under the two parts of the regulation will not be added together, so there will be no ‘double counting’ of the emissions from these municipalities and competitive suppliers.

### **The MA GHG Registry**

Q1 – I received login information for the MA GHG Registry. Where can I find additional information about using the system, including information about user roles?

A1 – Please consult the Getting Started Guide for information about using the MA GHG Registry, including information about user roles. The Getting Started Guide is available at <http://www.mass.gov/dep/air/climate/reporting.htm>. A list of training opportunities, and contact information for the helpline that has been established for registry users, are also available from this web page.

Q2 – I believe that my facility may be required to report greenhouse gas emissions pursuant to 310 CMR 7.71. How can I obtain access to the MA GHG Registry?

A2 – Please send a short email with your contact information and basic information about your facility (e.g. name, location, and facility type) to the helpline. The helpline will forward this information to MassDEP, which will establish an account or contact you for additional information if necessary. Contact information for the helpline is available at <http://www.mass.gov/dep/air/climate/reporting.htm>. This web page also includes much additional information about MassDEP’s GHG Reporting Program, including an applicability screen tool that can be used to determine whether your facility is likely to be subject to 310 CMR 7.71.